

FermiNews

Fermi National Accelerator Laboratory

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Number 20

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Accelerator Division
Head Dave Finley
(left, below) will head
the new Beams Division.
CDF Department Head
John Cooper (middle),
assisted by Deputy
Stephen Pordes, will
lead the Particle
Physics Division.



Fermilab Director John Peoples enumerated the major tasks the Laboratory must accomplish, as he described a new organizational structure to help get them done.

Fermilab Reorganizes to Get the Work Done

by Judy Jackson, Office of Public Affairs

As he described for a Laboratory audience the tasks confronting Fermilab in the coming decade, Fermilab Director John Peoples showed a transparency entitled "Conceptual Plans for the Future." It listed new particle accelerators and detectors that might someday be built at the Laboratory. When a fly landed on the second entry, "Muon Collider," Peoples swatted it away.

"Ah!" quipped a member of the audience. "The first collision at a muon collider at Fermilab."

The Laboratory has much to accomplish before any further collisions can occur at a muon collider—or at any Fermilab collider, including the Tevatron in Collider Run II. And last week, in a series of meetings with members of the Fermilab community, the Laboratory director described plans to create "a better alignment of our organizational structure with the work on our plate."

The reorganization plan, which will take effect on January 1, 1997, grew from six weeks of collaborative effort by the director and the heads and heads-to-be of four new scientific and technical divisions: the Beams Division, the Computing Division, the Particle Physics Division and the Technical Division. The organization of administrative sections of the Laboratory will remain largely unchanged.



New Users Executive Committee

by Donald Sena, Office of Public Affairs

Fermilab's Users Executive Committee seated its newest members and selected officers for 1996-97 at the Sept. 21 meeting. The group elected Patricia McBride from Fermilab as chairperson and Maury Goodman, from Argonne National Laboratory, for a second term as secretary.

McBride succeeds Al Goshaw, from Duke University, as chair; Goshaw, however, remains on the committee for his third term. The group also added six new members, all from different universities from around the country. McBride said the committee serves as a strong link between the scientists who use Fermilab for research and the Lab itself.

The UEC "takes care of several issues," said McBride. "One is to support and maintain the strength of the scientific function of the Lab, and to make sure it's a creative environment, so experimentalists can come here from outside institutions and do science" at the energy frontier.

The UEC, through subcommittees and as a whole, plans to tackle many issues in its current term. For example, McBride said the committee wants to study how users can become more active in outreach programs to bridge the gap between scientists and the public, whose tax dollars support research at Fermilab.

Another area of attention is the relationship between scientists and the people who control the taxpayers' money. McBride envisions the UEC acting as an "educational

interface between the users and folks in Washington" during this time of shrinking budgets for particle physics in the U.S. She said the UEC's annual trip to the nation's capital to meet with officials at the Universities Research Association, Department of Energy employees and members of Congress is one of the more important tasks of the committee.

The UEC has also established its committee network for the coming term. The group created committees focusing on younger physicists, continuing education and the job market; the quality of life of users and facility upkeep; outreach programs; the annual trip to Washington; funding and science education; computing issues and the Users' Annual Meeting, which included an address by Secretary of Energy Hazel O'Leary at the last gathering of users.

McBride said the UEC was very active last year and she hopes to continue their success this year.

"This year's committee members are very energetic. I am looking forward to working with them," said McBride.

Information about the UEC and other user activities can be found on a new World Wide Web page located at http://www.fnal.gov/orgs/fermilab_users_org/uec.html ■



Fermilab physicist Patricia McBride, new chair of UEC.

The following people make up the new UEC (an asterisk indicates a continuing member):

- Al Goshaw*, Duke University (ex-chair)
- Maury Goodman*, Argonne National Laboratory (secretary)
- Jay Hauser*, University of California, Los Angeles
- Patricia McBride*, Fermilab (chair)
- Richard Partridge*, Brown University
- Juliana Whitmore*, Fermilab
- John Yoh*, Fermilab
- Mary Anne Cummings, University of Hawaii
- David Gerdes, Johns Hopkins University
- Richard Gustafson, University of Michigan
- Tacy Joffe-Minor, Northwestern University
- Young-Kee Kim, University of California, Berkeley
- Naomi Makins, University of Illinois, Urbana-Champaign



The new UEC. Seated left to right, front row: Young-Kee Kim, Naomi Makins, Patricia McBride, Tacy Joffe-Minor, Juliana Whitmore, Jay Hauser. Back row: Al Goshaw, Richard Partridge, Maury Goodman, David Gerdes, Richard Gustafson, John Yoh, Mary Anne Cummings.

Laboratory Dedicates Lach Theater

“She cared about physics and she cared about Fermilab, but she always put people first.”

—Joe Lach, of his wife, the late Barbara Lach

The Barbara Ryan Lach theater.

Recalling her many contributions to Fermilab communication, Director John Peoples dedicated the Laboratory’s 15th floor visitors’ theater in honor of Barbara Ryan Lach, director of Public Information at Fermilab from 1990 until her death from cancer in 1995. More than a hundred guests, including Lach’s husband, Joseph Lach, and the couple’s children, Michael and Elizabeth, joined the director and members of the Board of Overseers in recalling Lach and her lasting influence on the Laboratory. The director cited especially her partnership with physicist Ernest Malamud in planning the refurbishing of Wilson Hall’s 15th-floor visitor area.

“People, physics and Fermilab were what mattered to Barbara—in that order,” her husband told the group. “She cared about physics and she cared about Fermilab, but she always put people first.”

Peoples unveiled a plaque at the entrance to the visitors’ theater and read from it a quota-



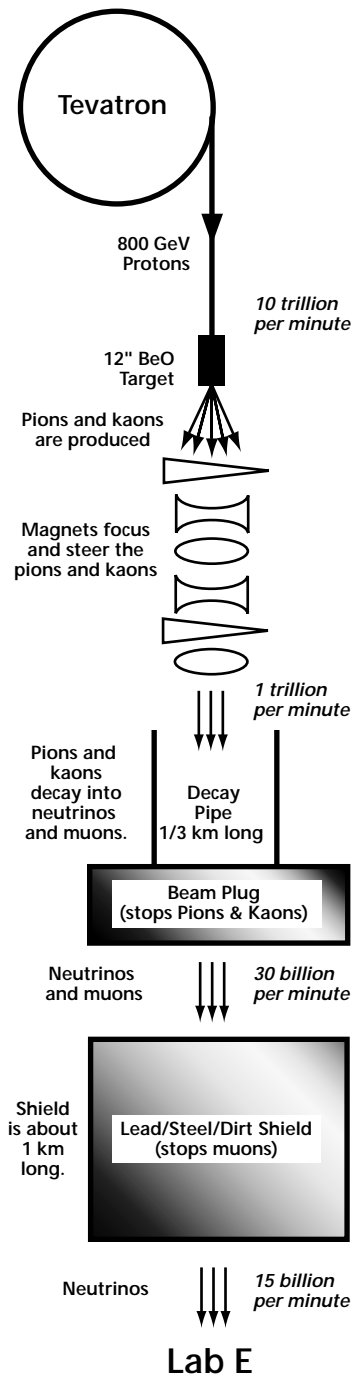
tion from Lach on the value of the 15th floor center: “Fermi National Accelerator Laboratory has an obligation to communicate its mission to the general public. The visitors’ area, with its spectacular vistas and wide hours of availability, is an excellent vehicle for communication.”

The Barbara Ryan Lach theater occupies about 750 sq. ft. and can accommodate 40 people. Visitors can view a selection of Fermilab videotapes explaining the Laboratory and its mission of high-energy physics research. ■



Fixed-Target Physics Part Deux

How E815 gets its neutrinos



(Observe about 15 interactions per minute.)

by Peter Garbincius, Physics Section, and Leila Belkora, Office of Public Affairs

As a pasta machine makes dough into long strands of spaghetti, pillows of ravioli, or curly mounds of rigatoni, depending on the attachments, so fixed-target experiments take a stream of protons and produce particle beams of whatever kind they need, using specialized targets and selection devices. At Fermilab, where nine fixed-target experiments are currently running, the menu includes beams of particles such as hyperons, neutral kaons, and the dieter's delight—the calorie-free neutrinos.

Primary protons from the Tevatron—the basic ingredient of all but two of the fixed-target experiments—hit targets to produce secondary beams. Some experiments use the secondary beams directly, while some require another stage to study particles that decay from them. In either case, the first choice experimenters make is what type of target to use.

The optimum target is one that favors producing the particles of interest, but does not absorb them. E872 needs neutrinos, elementary particles that react with matter so little that they can travel through the earth itself without being significantly absorbed. That experiment's target consists of a thick block of tungsten, in which pions materialize and decay into neutrinos. The rest of the beamline is mostly absorbent shielding, to take everything but the neutrinos out of the beam. E831, on the other hand, needs a beam of photons that would be completely absorbed by a metal target. Experimenters there chose liquid deuterium for their target because compared to metals it has a more favorable balance of charge and mass. The charge in the target particle absorbs and reconverts photons (bad for beam intensity), while a high mass favors producing photons (good for beam intensity).

Experimenters focus the primary proton beam down to a narrow spot illuminating their target. Again, they make

trade-offs. The smallest spots give the most intense beams, but focusing the beams too strongly could melt the target.

Directly downstream from the target, experimenters select for the particles they're interested in. KTeV, for example, selects for the subatomic particles called neutral kaons. A magnetic field sweeps charged particles out of the way. The neutral kaons are not affected by magnetic fields, and emerge in all directions. Experimenters could position a detector in the straight-ahead direction to get the maximum number of kaons, but unwanted neutrons are also most numerous there, so they move to an angle where they get enough kaons, but not too many neutrons. At a wider angle they could get fewer neutrons—a smaller background to the signal—but they'd also get fewer kaons.

Experimenters make trade-offs in selecting a target, focusing the primary beam onto the target, and purifying the secondary beam, always seeking the strategy that will yield high signal and low background. They don't have as much choice, however, in where they position the detectors. The physical length of a fixed-target beamline is determined by the lifetime of the chosen particle. Some fixed-target experiments stretch over a kilometer or more. The Sigma-minuses used in E781 have a lifetime of 1.5×10^{-10} seconds, and travel about seven meters before decaying, so the experimental detectors are close to the target. The pions in E815 have a lifetime over a hundred times longer than that of the Sigma-minuses, and travel correspondingly farther before decaying.

The fixed-target experiments look very different from one another, and require specialized beams to achieve their physics goals. It's the technique for forming the beam that's the same. As one experimenter put it, you focus, you target, you make a selection, and you do something about your background.

Tutti mangia! ■

Marilyn Smith

Director's Assistant

Employee I.D. #4768

Ken Stanfield, who describes Marilyn Smith as an excellent assistant, appreciates her willingness to pitch in and do whatever is necessary."



by Leila Belkora,
Office of Public Affairs

Visitors and coworkers know Marilyn Smith for her serene and cordial manner, but in the Directorate where she works, Smith is also known as formidable—when it comes to using computers. Her colleagues view her as a local authority on the Macintosh. A member of the Computing Division once admitted that he reads the manuals explaining whatever new equipment Marilyn has; otherwise she'll be one step ahead.

Smith, who grew up in Chicago, formed an interest in computers in high school. She continued to learn programming languages such as BASIC and Fortran in college, where she minored in Computer Science. For her major, however, she chose Political Science, reflecting her ability to work with people. "My first job was with my father, who was a local union president of United Auto Workers at the time. I worked in his office, helping with grievances and just doing general office work.... My major was related to my work with my dad, and the things he was going through in his life. At one point he was going to run for something and needed a campaign manager, so it might as well be me. I thought along those lines when I was going to school," said Smith.

Smith's primary responsibility is to assist Deputy Director Ken Stanfield. She maintains his appointment calendar, makes travel arrangements, drafts letters, prepares transparencies for lectures, and answers the phone, among other things. She has a clear notion of how her work furthers the mission of the lab. "By troubleshooting situations that don't necessarily call for the director or his associates or deputy to respond to, and being knowledgeable enough to answer those questions or direct them elsewhere, I free them up for the things that are most important to them—that is, to keep the Lab going, to keep the funding coming, and to make sure the physics does what it needs to do," she says.

Stanfield, who describes Smith as an excellent assistant, appreciates her willingness to "pitch in and do whatever is necessary." Smith takes particular pride in a special job she took on to help Fermilab reach out to physics



Photos by Reidar Hahn

teachers. Over 130 teachers gathered at Fermilab for a weekend conference on teaching modern physics. Smith typed "constantly" for three days in a row so that participants could take the proceedings home with them. Director emeritus Leon Lederman, who organized the conference, wrote, "The typing of the voluminous handwritten materials produced by 135 conference participants was a monumental task.... The 150-page document that the participants were able to take back permits immediate testing in their schools. This would not have happened but for your dedication and skills."

Smith loves working at Fermilab. She says, "There's so much available at your fingertips. Just looking out the window and seeing the trees change...just the atmosphere itself. There's so much available to get the public involved. My kids, living here and working here, have access to so much they might not have had if we stayed in Chicago." Two of Smith's sons worked at Fermilab this past summer, and one, who wants to go into engineering, participated in the Target program for high-school students.

"I do like the sense of community here," Smith says. "The Directorate itself has been very good to me since I've been here. All the people in the Directorate are very good people to work with and I've enjoyed it and I've learned, and I think there's more to learn. And I'll be here 'til they tell me not to come in." ■

Scenes From a Prairie Harvest

Fermilab held its most popular harvest ever in late September.

John Rea with his son Nathaniel, from Batavia, enjoy the prairie on the cool fall day.



Mike Becker, of Roads and Grounds, leads volunteers to their harvest site.



Girl scouts from Ashton, IL made the trip to Fermilab to visit the native grasslands.

*Text by Donald Sena, Office of Public Affairs
Photos by Reidar Hahn of Visual Media Services
and Donald Sena*

Fermilab's prairie keepers held their most successful prairie harvest in 20 years on September 28, as more than 200 people helped clip tall-grass flowers during the annual fall event.

Lab employees, families, boy scouts, girl scouts, high school nature clubs and numerous individuals from all over northern Illinois helped gather barrels of seed, which Fermilab's environmental team will plant on the campus in the spring or share with other prairie restoration projects around the Midwest. Mike Becker, of Roads and Grounds, said there were more people clipping flower heads in the first 45 minutes of the harvest than he had seen in an entire single day since the mid-1970s.

"We got more seed at the harvest than ever before; we got barrel-fulls of certain species that we needed," said Bob Lootens of the Roads

and Grounds Department and one of Fermilab's resident prairie specialists.

Lootens added that many of the species the volunteers collected are the ones the nature team needs to enrich other prairie sites on the Laboratory grounds. They include the Obedient Plant, Sweet Black-Eyed Susan and False Sunflowers.

These species "are in the areas that, historically, we don't 'combine,' or they are too low to the ground" to gather mechanically, said Lootens.

Volunteers included current and retired Lab employees; students from numerous Illinois schools, including the Illinois Math and Science Academy; members of the Batavia High School Tree Club; Boy and Girl Scouts; Tiger Scouts and many neighbors from the surrounding communities planning to get their hands dirty and spend some time with their families.

Two of those neighbors included John Rea and his son Nathaniel from Batavia. The elder

“We got more seed at the harvest than ever before; we got barrelfuls of certain species that we needed.”

Bob Lootens of the Roads and Grounds Department

Lura Meisch and her mother Jeri, from Batavia, work as a team to gather seeds.



Danny Liechti, a cub scout from pack 153 in Batavia, adds to the day's bounty.

More volunteers add their seeds to the group's effort.

Rea said he enjoys the open spaces Fermilab provides, allowing him and his son to experience a bit of nature—not to mention history—with the harvest. When told of desires by outside entities to put new roads and railroads on the grounds, he said that would be a big mistake, because it would take away one of the few remaining open natural areas, as the suburbs continue their westward crawl.

Lab employees volunteered some of their Saturday at the harvest to show people what to look for in the grasslands, help demonstrate the proper clipping technique, organize the bounty as the volunteers returned and serve lunch.

Fermilab will hold another harvest on November 2. Contact the Office of Public Affairs (x3351) or the Roads and Grounds crew (x3303) with any questions. ■

IN MEMORY: GEORGE MICHAIL

Members of the Laboratory community mourned the tragic death on Saturday, October 5, of George Michail, a Harvard graduate student and CDF collaborator. Michail's car was struck by a vehicle going the wrong way on a one-way street in Chicago on September 28.

The accident that claimed Michail's life also severely injured his wife of one year, Tina Douki. She is expected to recover.

Michail was born on June 15, 1968 in Athens, Greece, where he graduated from Athens University in 1990. He came from Greece to Harvard to continue with graduate studies in physics, joining CDF in 1993.

He continued to take a particular interest in helping other Greek students studying in the U.S. “Young students from Greece who wanted to come to America for studies always found the advice they sought in George,” said a CDF colleague, Maria Spiropolu.

Michail's advisor, Harvard physicist Melissa Franklin, said she would remember two things about him: “The first is how much he loved physics and was dedicated to doing it brilliantly, and the second is how gentle and sweet a person he was. The work he leaves behind on *b* quark mixing and the incredible number of friends he had shows this most clearly.” ■

Reorganization

continued from page 1

“The reorganization has two goals,” Peoples told Laboratory managers at an October 7 meeting. “It will allow us to fulfill our current commitments and it will let us plan for the future. The new divisions will bring the Laboratory organization into alignment with the work the Laboratory must accomplish over the next three years.”

Peoples said the realignment will benefit the completion of the Main Injector project and the job of getting CDF and DZero ready for Run II in 1999. He added that it will allow the Laboratory to work on magnets for CERN’s Large Hadron Collider and on CMS, one of the LHC’s detectors; and that it will benefit work for NuMI. “And very significantly,” he added, “it will free up about five percent of the staff to work on conceptual planning for the future. Five percent may sound modest to you, but that’s 50 more people who can think about and plan our future.”

Noting that “the common core competence that binds the technical staff together is expertise in experimental particle physics,” Peoples described the distinct mission and core competences of each new division. The Accelerator Division and the activities associated with the external proton beams, primary target stations, secondary and tertiary beams, and the radiation interlock systems for these beams and target stations, all presently in the Research Division, will be merged into the Beams Division, under the leadership of current Accelerator Division Head Dave Finley. The Research Division—less the beams activities—and the Physics Section will merge to form the Particle Physics Division, with John Cooper, now CDF Department leader, at the head. The division’s mission includes providing management and technical resources for construction and operation of experiments.

The current Technical Support Section will become the new Technical Division, under the continuing leadership of Peter Limon, with the mission to “develop, design, fabricate, procure, and test accelerator and detector components required to carry out Fermilab’s mission.” The Computing Division, with Division Head Joel Butler, will



Photo by Reidar Hahn

Senior Safety Officers TJ Sarlina, of the Research Division, and Howard Casebolt, of the Accelerator Division, stayed behind after a briefing to discuss implications of Laboratory reorganization.

provide leadership, support and resources for data acquisition, storage, access and analysis; and for general, scientific, technical and administrative computing and networking.

While some of the new divisions have nearly completed the definitions of the functions of the individual departments, others have just begun. Peoples said he expects these internal changes to be defined by the end of November, for implementation in the new calendar year. “I want us to go into the Christmas shutdown with one organization and come out with another,” he said.

“ The new divisions will bring the Laboratory organization into alignment with the work the Laboratory must accomplish over the next three years.”

~ John Peoples

Fermilab Budget Overview FY1997

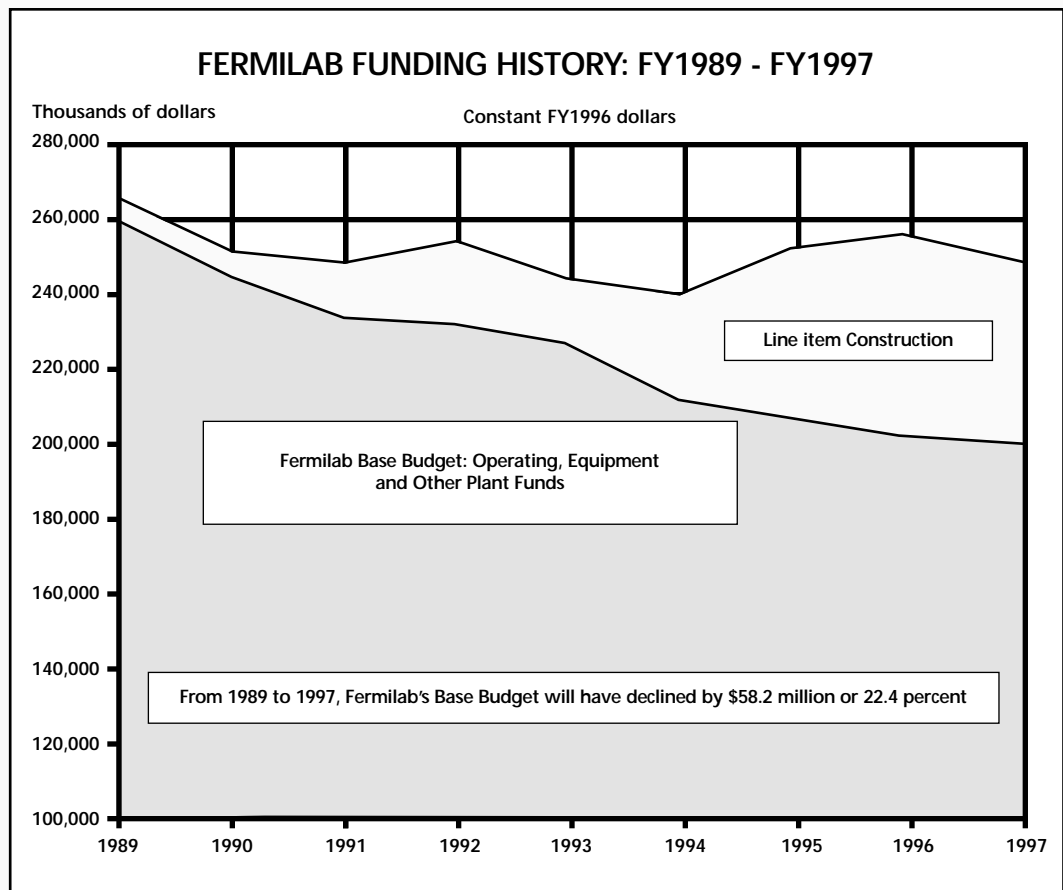
Fermilab began the FY1997 fiscal year on October 1 with a budget slightly smaller than last year's allocation. This year's operating and equipment budget of \$204.1 million compares to \$205.6 million in FY1996. Adjusting for inflation brings the funding level to \$198.2 million in 1996 dollars. Main Injector construction funds stayed the same, at \$52 million, or an inflation-adjusted \$50.5 million.

At the same time, Laboratory operating expenses will be higher in FY1997, because of approximately \$6 million in increased electric power costs associated with fixed-target experiments, which use more power than the collider program. Other increased operating costs for FY1997 leave Fermilab with a \$12 million budget "challenge" in the coming year.

The Laboratory will use the budgetary flexibility accorded by Congress to move about \$6 million in resources

from the equipment budget to help cover operating expenses, said Deputy Director Kenneth Stanfield. Much labwide equipment spending will be deferred in FY1997 in order to maintain the CDF and DZero detector upgrades at a funding level comparable to last year's. The two collaborations are rebuilding their detectors to prepare for Collider Run II with the new Main Injector in 1999.

Stanfield said the remaining \$6 million in savings must come from decreases in Laboratory staff, and elsewhere. "I expect the Fermilab staff will be smaller by roughly 100 by the end of the fiscal year," he said. Recently announced reorganization plans will also yield some efficiencies of operation, and an enhanced ability to accomplish what Director John Peoples described as "the work on our plate," in the face of declining budgets. ■



ACCELERATOR

The weekend of Sept. 27 to the early morning hours of Sept. 30 saw 54.5 hours of high-energy physics out of a possible 72. During that time, a sporadic problem with the Main Ring beam caused injection aborts in the Tevatron; these were eventually traced to a damper.

October 7 began the scheduled shutdown of the accelerator for the construction of a shielding wall at DZero, and the Accelerator Division took advantage of the time to perform some maintenance and repairs in other areas. Major jobs included adding shielding to the transfer hall, searching for an aperture restriction in the Main Ring and repairing two low-conductivity-water leaks—one outside the Central Utilities Building and the other just west of CDF.

During this maintenance period, experiments in the Antiproton Source took data until early morning on Oct. 9, when the Accelerator Division workers made a supervised access to the Antiproton ring for air conditioning repairs.

The maintenance period ended in the late afternoon of Oct. 9 and beam came up shortly after.

FIXED-TARGET

Collaborators provided this update on fixed-target experiments.

E835 Charmonium Rosanna Cester, spokeswoman for E835, said the collaboration has already detected the ψ prime, which is one of their collaboration's resonances. She added that the pbar crew is setting up the deceleration that E835 requires.

"After that, we are ready to do some real physics," said Cester.

E799/E832 KTeV "We continue to evaluate the new data buffer chips recently installed on the CsI calorimeter, and during the recent shutdown we improved the efficiency of the drift chamber system and tested the vacuum system," said Herman White of Fermilab.

E866 NuSea "E866 continues to take data at our standard setting. Our progress toward a statistically-precise and systematics-free measurement is limited at the moment by the lack of stable beam from the accelerator," said Chuck Brown.

E862 Antihydrogen "We're still eagerly awaiting our first antihydrogen event. There is beam in the Accumulator now, and, if we're lucky, we'll have our first event before the beam is dumped [on Oct. 10] to allow E835 to fix an air conditioner. If not, we'll have to wait another week or so. One way or another, we're very close," said Dave Christian.

E815 NuTeV "NuTeV is continuing to accumulate data. Our continuous calibration test beam is now operating and we are measuring the detector response to hadrons and muons as a function of position and time," said Bob Bernstein.

E872 Donut "We're still shooting for the end of next week for completion of the beam. That's big news," said Byron Lundberg on Oct. 9. "We're going to power-test one of the new magnets soon and test the second one next week. All other major components are installed."

E781 SELEX "SELEX is continuing to accumulate charm data while finishing the final installation phase. Software development is a major focus. We have good peaks for strong-decay states like the ϕ , to confirm our momentum scale and resolution. Now, on toward charm," said Jim Russ.

E831 FOCUS "In the past two weeks, we've written over 200 million events on tape, and we're understanding the nature of our photon beam at high intensity," said Will Johns, a collaborator from the University of South Carolina. "This will allow us to write more events with more intensity when we get it."

E871 HyperCP Kam-Biu Luk reports that E871 is in the final phase of installing the spectrometer for their experiment.

Fermilab

As Accelerator Division Head Dave Finley passed through the Wilson Hall atrium on a recent Sunday afternoon, he heard the familiar voice of AD Run Coordinator Craig Moore coming from the VIDEONEWS kiosk. He stopped to watch, joining a man and woman who stood listening as Moore

explained the complex workings of the Fermilab accelerator system. As the tape ended, the man turned to Finley and said, "Wow! Can you imagine what it would be like to run that thing?" Finley agreed that it must be quite challenging.

Chez Léon

M E N U

Lunch served from
11:30 a.m. to 1 p.m.
\$8/person

Dinner served at 7 p.m.
\$20/person

For reservations call x4512
Cakes for Special Occasions
Dietary Restrictions
Contact Tita, x3524

Wednesday Lunch October 23

Cheese Fondue
Mixed Garden
Greens with
Mustard Vinaigrette
Baked Apples with
Calvados Cream

Thursday Dinner October 24

Chestnut Soup
Rack of Venison
with Lingonberry Sauce
Potato and
Celery Root Puree
Vegetable
of the Season
Kirsch and
Cherry Soufflé

1997 RECREATION MEMBERSHIP

Recreation Facility memberships for 1997 went on sale September 2 in the Recreation Office, WH15W. Sale hours are 8:30 a.m.-5 p.m., Monday through Friday. Regular memberships are \$60 and student memberships are \$30. Only renewal memberships may be purchased through Fermilab internal mail, MS 126. Please enclose completed application form and check.

Applications are on the Web under the Benefits/ Recreation page. All 1996 memberships expired October 1. For more information, call Jean x2548.

CAREER WORKSHOP

Fermilab and Universities Research Associations, Inc. will sponsor a two-day Career Assessment Workshop for graduate students and postdocs who intend to make the transition into non-academic employment. The workshop will be held on Monday and Tuesday, October 28-29, 1996 from 9 a.m. - 4:30 p.m. in Wilson Hall 15SW conference room. The seminar will be run by Jarosz Associates, Career Continuation Consultants, and will cover topics such as networking, interviewing skills and resume preparation. The seminar is co-sponsored by Fermilab and URA and will be held free of charge.

WORK/LIFE AGENDA

You are invited to an interactive video conference of the American Management Association's 5th Annual Conference for Working Women. Topics to be discussed include the clash between work and private life, flex time, telecommuting, job sharing and extended families and care-giving for aging parents. The Laboratory has arranged for this program to be broadcast on Wednesday, October 23 from noon to 2 p.m. in the One West Conference Room, Wilson Hall. Call Jeanelle Smith, x4366 or Rosie Navar, x3415 to confirm your attendance.

WINTER BASKETBALL LEAGUE

The Winter Basketball League begins Thursday, October 24. Games are held on Thursdays beginning at 5:30 p.m. in the Gymnasium. Team rosters are due at this time. New teams or individual players welcome. For more information contact Denise Bumbar, league representative, x8277, the Recreation Office, x2548, x5427, or jeanm@fnal.gov.

CHARITY CONTRIBUTIONS

Fermilab employees can voluntarily contribute to charities through payroll deduction. Participants can choose from over 150 charities. Approved charities by the Internal Revenue Service are tax deductible. For more information contact Ruby Coiley at x8365.

WINTER VOLLEYBALL LEAGUE

The Coed Winter Volleyball League begins October 21. Games are held in the gymnasium on Monday evenings. Contact Mark Mattson, League Representative at x4943 or mattson@fnal.gov or Jean Guyer, jeanm@fnal.gov. Must be a current Recreation Facility member.

OPEN ENROLLMENT, HEALTH CARE REIMBURSEMENT PLAN

Reimbursement accounts offered as part of Fermilab's Flexible Benefits Plan can help employees reduce health care costs. Reimbursement accounts allow employees to withdraw tax-free dollars that they set aside (up to \$2,000) through salary reduction to pay for eligible health care and dependent care expenses. Using before-tax dollars to pay these expenses effectively lowers their actual cost. An open enrollment period for these accounts will be in effect during the month of November. Employees currently enrolled will receive new forms; all other employees should contact the Benefits Office, 15WHSW, M.S. 126, x3395, for enrollment forms or information. Completed forms must be returned to the Benefits Office by the close of business November 27, 1996 for coverage to be effective on January 1, 1997.

LETTERS TO THE EDITOR

A reminder from the Fermilab Fire Department. More Americans have smoke alarms than ever before, but nearly half don't work. Without a working smoke alarm as an early warning device, fire can spread unnoticed through the house, blocking escape routes and filling rooms with deadly smoke. Start a lifesaving habit this October 27. When you change your clock, change the batteries in your smoke alarms.

~ Captain Steve Lusted

I'm delighted with my new subscription to *FermiNews*. Add a cartoon or two, and I'll cancel my subscription to *The New Yorker*.

~ Kate Metropolis
Goleta, CA

Hello. I do Oak Ridge National Laboratory's newsletter, Lab Notes, and I want to drop you a note to say that the Aug. 2 issue of *FermiNews*' flood coverage has assumed a place of honor in my file of employee communications. I don't know how the powers around here would react to photos of water pouring out of capital equipment, but I thought it was a fabulous job. We're on high ground here; I'm waiting on a pipe to bust.

~ Bill Cabage

CLASSIFIEDS

FOR SALE

■ Jarvinen Sundance, no wax, cross country skis, 205 cm, Nordic bindings and Artax boots, men's size 9 1/2 and poles, exc. cond. \$70. for package. Dynastar down hill skis, 185 cm, like new, Tyrollia 280 bindings, women's boots size 9, and poles, exc. cond. \$75 for package. Call Pam at x3352 or (630) 896-7867.

■ Like new, rattan/bamboo kitchen set, circular table with glass top, approx. 36 in. diameter, 4 chairs with cushions, whitewash color. \$450 when new, asking \$150. Small baker's rack, 4 shelves, gray color, \$80 when new, asking \$20. Call Gerry at x3930 or (630) 232-4061

■ Ford Probe GT, V6, 24V 94: 26,000 miles, first owner, exc. cond., still under warranty, blk/blk. 5 sp., A/C, pwr: windows, locks, mirrors, steering, brakes, cruise control, tilt, keyless, ABS, AM/FM cassette. Have all receipts. N.A.D.A. retail \$13,300. Rafael, x8311, Rafael@fnal.gov.

■ 1988 Ford Bronco II, 62K miles, 5 spd, air, pwr: windows and locks, AM/FM Stereo/cassette, cruise control, tilt wheel, luggage rack, cargo cover. Newer brakes, muffler, tires. Brand new battery. Good shape. Like new interior. One owner. \$6500 o.b.o. x2279.

■ 1991 Chevy Blazer S-10 good condition, runs good, one owner, maroon color, 5 spd., \$4700 o.b.o. (630)906-1390.

■ 5 hp Atlas single stage snowblower. Needs some work. Asking \$65. Call Elaine, x2193 or (630) 653-7430.

■ Mitsubishi Mirage, 1992, 4-door, green, auto, A/C, AM/FM, 1 owner, garage kept, 80K miles, excellent condition, \$4,950. Call Vladimir, (815)756-6099 or e-mail to sirotenko@fnal.gov.

■ One hide-a-bed sofa, brown, black and beige woven pattern with cushions and wood trim on arm rests. Great for rumpus room. \$30 o.b.o.. Light blonde wood vanity, 5 drawers with mirror and matching seat, both in very good condition. \$50 o.b.o. Call Rob, x3401, (630) 513-9422 or e-mail atkinson@fnal.gov.

■ 1989 Honda Prelude Si Coupe. 5-spd, A/C, AM/FM Cassette, Power Sun/Moonroof, 63K miles, very clean. \$7800, or best offer. Call Monica x3023 or (630) 293-1896 evenings.

■ Macintosh portable computer model M5120, E.C., new battery, manuals, modem, mouse and lots of software. \$250. o.b.o. Call x4248.

■ 1984 Century 18' open bow rec. boat. 140 H.P. I/O Mercruiser, low hours, 86' Shorlander trailer, stereo, new custom cover, pulls 3 skiers, runs great., \$4800. Call Gary at x3712 or (815) 838-7565.

■ Pennsylvania house dining table and chairs, 72 in. x 41 in. \$500., Howard Fulton, x3381 or (630) 879-7566.

■ 1987 Winnebago motor home, Ford 7.5 liter eng., 64K miles, 24.5 ft, sleeps 5, self-contained, furnace and air, exc. cond. inside & out, ready to go! Jackie, x3027 or Joe (630) 932-1450.

■ Two General XP 2000H4 tires, size 195/60 R15, excellent tread, \$20 each o.b.o., Hans, x4546.

FREE

■ Adorable kittens, free to good homes only. Mom and Dad only weigh about 5 pounds so the kids should remain small. Born September 9th, ready to go approximately October 21st. Call Edie, x3621 or (815) 496-9434.

CALENDAR

OCTOBER 18

The Graduate Student Association sponsors a seminar titled "Science in the Business World" by speaker Dr. Fady A. Harfoush, First Chicago NBD, Capital Markets Systems Business Systems Specialist, Assistant VP. From Fermilab to Sangamon Trading and now First Chicago Bank, the speaker shares his experiences and views about science and work in Wall Street and how it can relate to your experience at Fermilab. The talk will end with the speaker's personal comments, current trends, and answers to most frequently asked questions that you're too hesitant to raise in the presence of your boss and colleagues. The talk begins at 2 p.m. in One West.

OCTOBER 19

Fermilab Art Series presents, Brentano String Quartet, performing music of Schubert, Berg and Brahms. Ramsey Auditorium, 8 p.m. \$15. Call 840-ARTS for information and reservations.

OCTOBER 22

The Graduate Student Association sponsors a seminar titled "Financial Markets for Scientists" by speaker Dr. John Bilson, Director, Financial Markets and Trading Program, Illinois Institute of Technology. "Rocket scientists" are widely employed in financial markets to price complicated derivative products and to analyze the risk of portfolios of securities with complex payoff functions. The Financial Markets and Trading program at the Illinois Institute of Technology has been a popular program for those wishing to cross over from the physical sciences to the financial world. John Bilson, the director of the FM&T program, will discuss the opportunities for scientists in financial markets and the FM&T program of study. There will also be short presentations by individuals who have made the transition. The talk begins at 6 p.m. in One West.

NOVEMBER 1

NALWO potluck supper in the Village Barn, 5:30 - 8 p.m. Please bring a dish to serve 6 or 8 or contribute \$3 to cover costs. We will also collect \$1 from those adults drinking alcoholic beverages.

NOVEMBER 5

Immunization Clinic for Flu, Pneumovax, and Tetanus by Visiting Nurses Association of Fox Valley. In the One West Conference Room, 11 a.m. - 1 p.m.

MILESTONES

BORN

RETIRED

Ronald Norton, on October 4, 1996, He started at Fermilab on March 9, 1970. Norton worked for AD-Cryogenics Systems as a Technical Specialist.



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Fermi National Accelerator Laboratory

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